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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,866	06/26/2003	Yunoh Jung	20862.B.NP	5518
20551	7590	03/07/2006	EXAMINER	
THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 200 SANDY, UT 84070			MANAHAN, TODD E	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/606,866	Applicant(s) JUNG ET AL.	
	Examiner Todd E. Manahan	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,8-28,33,36-40 and 42-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42-48 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8-28, 33,37-40 is/are rejected.
- 7) ☐ Claim(s) 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/08/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The indicated allowability of claims 1, 3-4, 8-28, 33, 37-40 is withdrawn in view of the newly discovered reference(s) to “W.O.W. Articulator Techniques”. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what applicant means by the membrane “formed integrally with one another and of the same material”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 33 is rejected under 35 U.S.C. 102(b) as being anticipated by “W.O.W. Articulator Techniques”.

“W.O.W. Articulator Techniques” disclose a method comprising placing a thin membrane (scotch tape) over registration pin holes and pushing a registration pin or dowel all the

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way in the holes, which would inherently break the membrane, introducing dental casting material on the opposing tray to form an opposing model, introducing dental stone on the working tray and over the pins to form a prepped model. The step of taking the impression of the patients' teeth would be inherently preformed in order to obtain proper bite registration between the upper and lower tooth models.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 10-26, 28, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman (United States Patent No. 5,788,489) in view of "W.O.W. Articulator Techniques".

Huffman discloses a dental articulating system comprising a pair of trays 3 pivotally coupled together; a plurality of registration pin holes 13 formed in the tray, at least on indentation (formed by flange 27, see figure 3) formed in the bottom of the tray and sized to receive a tip of a finger or thumb; and at least one registration pin 11. Huffman however does not disclose the membrane disposed between the indentation and the registration pin holes to close off the holes. "W.O.W. Articulator Techniques" discloses placing a thin membrane, scotch tape, across the bottom of registration pin holes to prevent die stone from penetrating the pin holes. It would have been obvious to one skilled in the art to provide the articulator of Huffman with a thin

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membrane between the holes and the indentation and closing off the holes in view of “W.O.W. Articulator Techniques” in order to prevent die stone from penetrating the pin holes. Regarding claim 8, Huffman disclose the tray also including struts 7, however the struts are not hexagonal. To make the struts hexagonal, however would have been an obvious change in shape to one skilled in the art.

Claims 9 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman (United States Patent No. 5,788,489) in view of “W.O.W. Articulator Techniques” as applied to claims 1 and 21 above, and further in view of Whelan (United States Patent No. 4,439,151).

Whelan discloses an articulator tray having a trough formed therein by a perimeter wall 12,13. The wall has a wavy profile. It would have been obvious to one skilled in the art to provide the tray of the combination Huffman (United States Patent No. 5,788,489) as modified by “W.O.W. Articulator Techniques” with a trough formed by a wavy perimeter wall in view of Whelan in order to prevent spillage of stone material and also assist in alignment of the teeth after they have been separated.

Allowable Subject Matter

Claims 42-48 are allowed.

Claim 36 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 36, “W.O.W. Articulator Techniques” discloses placing a membrane over the bottom of registration pin holes, however it does not appear that this technique is used or could

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be reasonable used with a tray having multiple indentations, each associated with one of the registration pin holes. Furthermore, even if one were to apply such teaching to a tray having multiple indentations, each associated with one of the registration pin holes, the resulting structure would be for the membrane to close off the indentations rather than be disposed between the indentation and the bottom of the registration pin hole.

Conclusion

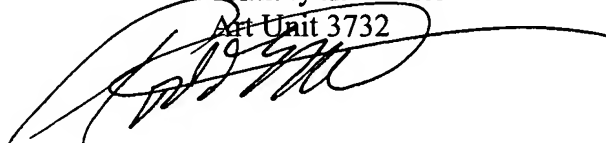
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd E. Manahan whose telephone number is 571 272- 4713. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571 273-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Todd E. Manahan
Primary Examiner
Art Unit 3732

A handwritten signature in black ink, appearing to read 'T. Manahan', is written over the printed name and title of the examiner.